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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,156	11/01/2001	Norihiro Nanba	1232-4783	4791

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EXAMINER

CHOI, WILLIAM C

ART UNIT PAPER NUMBER

2873

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/016,156

Applicant(s)

NANBA, NORIHIRO

Examiner

William C. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21, 23 and 25 is/are allowed.
- 6) ☒ Claim(s) 22 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/10/2003 has been entered.

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement (IDS) with the copies of the references cited therein was received on 3/10/2003. An initialized copy of the IDS is enclosed with this office action.

### ***Examiner's Comment***

The allowance of claims 22 and 24 from the previous office action has been withdrawn due to newly found references. A new rejection is set forth below.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Shibayama et al (U.S. 5,668,668).

In regards to claim 22, Shibayama et al discloses a zoom lens (abstract and column 13, lines 20-21, Figure 1A) comprising, in order from an object side to an image side: a first lens unit of a negative optical power disposed at a position closest to the object side in the zoom lens (column 13, lines 22-24, Figure 1A, "G1"); a second lens unit of a positive optical power disposed at a position following the first lens unit in order from the object side (column 13, lines 24, Figure 1A, "G2"), said second lens unit having a cemented lens formed by cementing a positive lens element to a negative lens element (Figure 1A, "G2"), a thickness of the positive lens element constituting the cemented lens being greater than a thickness of the negative lens element (Figure 1A, "G2"); and a third lens unit of a positive optical power disposed at a position following the second lens unit in order from the object side (column 13, lines 24-25, Figure 1A, "G3"), said third lens unit moving along an optical axis for zooming (Figure 1A, "G3"), wherein a space between said first and second lens unit decreases (Figures 1A & B, "G1" & "G2"), and a space between said second lens unit and said third lens unit increases in zooming from a wide angle end to a telephoto end (Figures 1A & B, "G2" &

"G3") and satisfying the claimed condition regarding number of lens elements (Figure 1A, "G1"- "G3").

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibayama et al.

Regarding claim 24, Shibayama et al discloses as set forth in claim 22 and further discloses an image taking apparatus comprising an image taking lens comprising said zoom lens (column 1, lines 5-7), which inherently would form an image of an object on a photosensitive surface (i.e. film), this being reasonably assumed from Shibayama et al disclosing said image taking apparatus being a camera (column 1, line 7), but does not specifically disclose a photoelectric conversion element as claimed. Examiner takes official notice that it is well known in the art for cameras comprising zoom lens systems to comprise photoelectric conversion elements since the incorporation of a photoelectric conversion element, such as in a digital camera, would provide the benefit of capturing a larger number of images without the inconvenience or expense of film.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the image taking apparatus of Shibayama et al to comprise a photoelectric conversion element since it is well known in the art for cameras comprising zoom lens systems to comprise photoelectric conversion elements, such as in digital cameras, since the incorporation of photoelectric conversion elements would provide the benefit of capturing a larger number of images without the inconvenience or expense of film.

***Allowable Subject Matter***

Claims 1-21, 23 and 25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a combination of all the claimed features as presented in claims 1-8 and 10-20: a zoom lens as claimed, specifically wherein the third lens unit comprises a positive lens element cemented to a negative lens element, which moves along an optical axis for zooming and satisfies the claimed condition regarding the number of lens elements for each group.

The prior art fails to teach a combination of all the claimed features as presented in claims 9 and 25: a zoom lens as claimed, specifically wherein the third lens unit moves along a convex locus to the image side in zooming from the wide angle end to the telephoto end.

The prior art fails to teach a combination of all the claimed features as presented in claims 21 and 23: a zoom lens as claimed, specifically satisfying the claimed

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condition regarding the number of lens elements for each group and wherein the second lens group consists of 3 lens elements.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Choi whose telephone number is (703) 305-3100. The examiner can normally be reached on Monday-Friday from about 9:00 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

W.C.C.  
William Choi  
Patent Examiner  
Art Unit 2873  
June 23, 2003

*Georgia Y. Epps*